

Description

TOOL FOR APPLYING LIQUID COSMETIC MATERIAL

Technical Field

- [1] The present invention relates to a tool for applying a liquid cosmetic material, which is constructed so that a cartridge containing the liquid cosmetic material is conveniently replaced with a new one without removing a cap from a vessel body of the tool whenever it is required to replace the cartridge, thus realizing an easy and simple manipulation thereof.

Background Art

- [2] Typically, a tool for applying a liquid cosmetic material, that is, "eyeliner", has been used to apply a liquid cosmetic material along an area where eyelashes grow, thus emphasizing the shape of the user's eyes and making the eyes beautiful. As shown in FIG. 7, a pen-type tool will be described as one example of a conventional tool for applying the liquid cosmetic material. The tool includes a head 01 having a brush 01a. A cartridge 02 containing a liquid cosmetic material is pushed to be fitted into the head 01. Further, a general shaft 03 is secured to the head 01 by engagement of the shaft 03 with a threaded part 01b of the head 01, and has a knock button 03a which is biased by a spring (not shown) accommodated in the tool. The tool also includes a cap 04 that covers the brush 01a by engagement of the cap 04 with a threaded part 03b of the shaft 03. Such a cap 04 may be mounted to the shaft 03 which protects the cartridge 02 by pushing the cap 04 over the threaded part 03b of the shaft 03. When the eyeliner is not in use, it is stored in the state of FIG. 7a. Conversely, when the eyeliner is used, as shown in FIG. 7b, the cap 04 is separated from the threaded part 03b. In such a state, the brush 01a is moved along the portion where the eyelashes grow so as to outline the eyes. Meanwhile, when the cartridge 02 must be replaced with a new one, as shown in FIG. 7c, the cap 04 is removed from the threaded part 03b of the shaft 03, and subsequently, the shaft 03 is removed from the threaded part 01b of the head 01.
- [3] However, the conventional eyeliner is problematic in that the cap 04 is assembled with the threaded part 03b of the shaft 03 through a screw-type fastening method, so that the shaft 03 as well as the cap 04 must be removed from the head 01 when the cartridge 02 is replaced with a new one. Therefore, it is complicated to replace the cartridge, and it is difficult to replace the cartridge in a short time. Further, after the installation of the cartridge 02 has been completed, the shaft 03 must be coupled to the head 01 again, and thereafter the knock button 03a must be pushed so that the eyeliner is reset. Thereby, the eyeliner may be used again. Consequently, it is very complicated and inconvenient to replace the cartridge 02 with a new one.

Disclosure of Invention

Technical Problem

- [4] Accordingly, the present invention has been made keeping in mind the above problems occurring in the prior art, and an object of the present invention is to provide a tool for applying a liquid cosmetic material, which is constructed so that it is possible to simply replace a cartridge in a short time without removing a cap, when it is required to replace the cartridge with a new one, and it is possible to immediately use the tool without additional manipulation other than removal of the cap, after the cartridge has been replaced with the new one.

Technical Solution

- [5] In order to accomplish the object, the present invention provides the following means.
- [6] That is, a tool for applying a liquid cosmetic material disclosed in the first claim includes a joint unit secured to an interior of a vessel body and having a liquid passage that causes a first portion around a first end having a valve to communicate with a second portion, a brush holder liquid-tightly and slidably coupled to the joint unit and including a valve seat biased to be spaced apart from the valve, due to an elastic force of a first spring which is installed between the brush holder and the joint unit while being compressed and a holder part to support a brush means, a brush protecting cap detachably mounted to the vessel body, and covering the brush holder, a pipe liquid-tightly and slidably mounted to an outer portion of a second end of the joint unit, and normally biased toward the second end of the joint unit by an elastic force of a second spring installed between the vessel body and the joint unit while being compressed, and a cartridge fitted over the pipe in such a way as to slide along the pipe against the elastic force of the second spring and containing the liquid cosmetic material, the cartridge being mounted to the pipe such that a portion around an outside end of the cartridge faces outwards from an open end provided on the vessel body.
- [7] Further, according to the second claim, a knocking cap is detachably mounted to the outside end of the cartridge and is guided to the open end of the vessel body.
- [8] Further, according to the third claim, a spring seat is provided on an inside end of the pipe to support the second spring, a stopper link is mounted to the spring seat in such a way as to move along the vessel body and defines a maximum stroke of the cartridge, and the stopper is mounted to the knocking cap in such a way as to contact the vessel body.
- [9] Further, according to the fourth claim, the brush protecting cap includes an outer cap, an inner cap installed to be movable in the outer cap, and a third spring installed between the outer cap and the inner cap, and having an elastic force greater than that of

the first spring, wherein, when the brush protecting cap covers the vessel body such that the inner cap contacts the brush holder, the elastic force of the third spring is transmitted through the inner cap to the brush holder.

- [10] Further, according to the fifth claim, the brush means installed at a predetermined portion of the brush holder includes a brush and a brush casing to surround the brush, with a ring provided on an outer portion of the brush casing in such a way as to contact the inner cap.

Advantageous Effects

- [11] Thereby, according to the first claim, a tool for applying a liquid cosmetic material is constructed so that a brush holder is mounted to a first end of a joint unit, and a pipe used to install a cartridge is mounted to a second end of the joint unit, and a general vessel body is fitted over the joint unit to accommodate the joint unit. The brush holder is biased in the direction of a valve seat moving away from a valve of the joint unit (toward the first end of the joint unit, namely, in a direction of the downstream side of the flowing liquid cosmetic material), by a first compression spring which is installed between the brush holder and the joint unit. The pipe, mounted to the second end of the joint unit, is normally biased in another direction of the joint unit (in an upstream direction of the flowing liquid cosmetic material) by a second spring which is installed between the vessel body and the joint unit while being compressed. Further, a brush protecting cap is detachably mounted to the vessel body. The cartridge fitted over the pipe is constructed so that a portion around an outside end of the cartridge faces outwards from an open end of the vessel body. Due to such a construction, when the cartridge is replaced with a new one, a user holds a portion around the outside end (head) of the used cartridge, and pulls the cartridge from the pipe, thus removing the cartridge from the vessel body without removing the brush protecting cap from the vessel body. Subsequently, the new cartridge is inserted from the open end of the vessel body. The cartridge is fitted into the vessel body against the elastic force of the second spring provided on the pipe, thereby the cartridge is mounted to the joint unit. As a result, unlike the prior art, it is not necessary to sequentially disassemble the vessel body of this invention, corresponding to a cap 04 and a shaft 03 of the prior art, from the joint unit of this invention, corresponding to a head 01 of the prior art. Further, it is possible to simply and easily replace and install a cartridge without removing the cap from the vessel body. Furthermore, the replacement and installation of the cartridge are carried out in a short time, thus realizing easy manipulation thereof.
- [12] Further, during the operations of fitting and replacing the cartridge, the valve seat of the brush holder closes the valve of the joint unit against the elastic force of the first spring due to a force transmitted from the cap mounted to the vessel body. Such a con-

struction prevents a liquid cosmetic material contained in the new cartridge from flowing to a brush due to liquid pressure generated in the cartridge when the cartridge is fitted into and enters the pipe, thus preventing the waste of the liquid cosmetic material. Particularly, when a user desires to exchange the cap with another one after the replacement of the cartridge has been completed, predetermined liquid pressure acts on a liquid passage extending to the valve of the joint unit. Thus, unlike the prior art, it is not necessary to perform an initial manipulation that pushes the knock button, that is, it is not necessary to push the cartridge against the elastic force of the second spring. That is, merely by removing the brush protecting cap from the vessel body and knocking the cartridge, the tool is ready to be used again. Thus, the liquid cosmetic material is immediately supplied to the brush of the brush holder through a gap which is formed when the valve seat is spaced apart from the valve due to the elastic force of the first spring. Consequently, a user can rapidly put on makeup without the waste of the liquid cosmetic material. Furthermore, this invention realizes a tool for applying a liquid cosmetic material that requires low maintenance costs.

[13] Moreover, when a user desires to supply the liquid cosmetic material to the brush during general use of the tool, the outside end of the cartridge protruding outwards from the open end of the vessel body is pushed against the elastic force of the second spring. Through such a pushing action, the pipe integrated with the cartridge comes into contact with the joint unit. Thereby, an amount of liquid cosmetic material corresponding to the number of times or the force with which the cartridge is pushed is transmitted from the liquid passage through a gap between the valve and the valve seat to the brush, thus accomplishing smooth and good makeup application.

[14] Further, according to the second claim, a knocking cap is detachably mounted to the outside end of the cartridge and is guided to the open end of the vessel body. Thus, various knocking caps appropriately designed to correspond to plating or painting performed on the surface of the vessel body or a material (e.g. plastics, metals, etc.) of the vessel body may be detachably mounted to the outside end (head) of the cartridge. That is, various designs of knocking caps may be selected according to a user's taste, thus providing a good appearance.

[15] Further, according to the third claim, a spring seat is provided on an inside end of the pipe to support the second spring, a stopper link is mounted to the spring seat in such a way as to move along the vessel body and defines a maximum stroke of the cartridge, and the stopper is mounted to the knocking cap in such a way as to contact the vessel body. Thus, when the head of the cartridge is pushed, the stopper link fitted between the spring seat of the pipe which is integrated with the cartridge and the inside end of the cartridge moves smoothly in the vessel body, thus affording a good feel when the cartridge is manipulated to supply the liquid cosmetic material. Further, the

strokes of the cartridge and the pipe integrated with the cartridge are determined by the position at which the stopper link comes into contact with the vessel body, and the position at which the stopper of the knocking cap comes into contact with the vessel body. Thus, the amount of liquid cosmetic material supplied to the liquid passage when the knocking cap is pushed once is always constant, thus preventing the waste of the liquid cosmetic material.

[16] According to the fourth claim, the brush protecting cap includes an outer cap, an inner cap installed to be movable in the outer cap, and a third spring installed between the outer cap and the inner cap and having an elastic force greater than that of the first spring. When the brush protecting cap covers the vessel body such that the inner cap contacts the brush holder, the elastic force of the third spring is transmitted through the inner cap to the brush holder. Thus, merely by mounting the brush protecting cap to the vessel body, the inner cap biased by the elastic force of the third spring is brought into contact with the brush holder. As such, the valve seat of the brush holder overcomes the elastic force of the first spring, thus being in close contact with the valve of the joint unit, therefore closing the passage of the liquid cosmetic material. Consequently, when the brush protecting cap is mounted to the vessel body, the valve seat closes the valve due to the elastic force of the third spring which is installed between the inner cap and the outer cap. Thus, even if the knocking cap is strongly pushed, the liquid cosmetic material is not undesirably supplied to the brush side, thus saving the liquid cosmetic material.

[17] Further, according to the fifth claim, the brush means, installed at a predetermined portion of the brush holder, includes a brush, and a brush casing to surround the brush, with a ring provided on an outer portion of the brush casing in such a way as to contact the inner cap. Thus, the outer circumference of the brush is protected by the brush casing, thus preventing the brush from being damaged due to a user's carelessness. Further, when the brush protecting cap is mounted to the vessel body, the inner cap comes into contact with the ring provided on the outer portion of the brush casing. The brush holder is integrated with the brush casing, so the elastic force of the third spring is smoothly transmitted from the ring to the brush holder, when the inner cap comes into contact with the ring. Therefore, merely by mounting the brush protecting cap to the vessel body, the valve seat is brought into close contact with the valve. Further, merely by removing the brush protecting cap from the vessel body, the valve seat is spaced apart from the valve due to the elastic force of the first spring, thus defining a supply passage for the liquid cosmetic material. Therefore, this invention achieves reliable operations of supplying and blocking the liquid cosmetic material.

Brief Description of the Drawings

- [18] FIGS. 1a to 1c are schematic views to show the use of a tool for applying a liquid cosmetic material, according to the present invention;
- [19] FIG. 2 is an enlarged sectional view to show the internal construction of FIG. 1a;
- [20] FIG. 3 is an enlarged sectional view to further magnify the size of the eyeliner of FIG. 2;
- [21] FIG. 4 is a sectional view of a brush protecting cap of the eyeliner of this invention;
- [22] FIG. 5 is an enlarged sectional view to show the state where the brush protecting cap is separated from the eyeliner of FIG. 2;
- [23] FIG. 6a is a sectional view of a cartridge adapted to the eyeliner of this invention, and FIG. 6b is a view to show the external appearance of the cartridge; and
- [24] FIGS. 7a to 7c are schematic views to show the use of a conventional tool for applying a liquid cosmetic material.

Best Mode for Carrying Out the Invention

- [25] Hereinafter, an eyeliner will be described as one example of the preferred embodiment of this invention, with reference to the accompanying drawings.
- [26] The schematic construction of the eyeliner according to the embodiment of this invention is as follows. That is, the eyeliner includes a cylindrical vessel body 1 and a brush protecting cap 7. When the eyeliner is not in use, part of a knocking cap 6d protrudes outwards, as shown in FIG. 1a. The brush protecting cap 7 is mounted to the vessel body 1. The internal sectional structure of the eyeliner is shown in FIGS. 2 and 3.
- [27] That is, as shown in FIG. 1b, when the brush protecting cap 7 is removed, a brush 4a is exposed to the outside. In such a state, a user draws a line around her eyes. The internal sectional structure of the eyeliner is shown in FIG. 5. Further, when the knocking cap 6d is pressed as shown in FIG. 1c, the cartridge 6 seen in FIG. 6 supplies a proper quantity of liquid cosmetic material to the brush 4a.
- [28] As shown in FIGS. 2 and 3, the vessel body 1 includes a short neck holder 1a which is made of a PP resin, and a long body 1b which is press-fitted over the neck holder 1a to be secured thereto and is made of a PP resin. A joint unit 2, which is made of a material, such as a PP resin, is installed in the neck holder 1a. In a detailed description, the joint unit 2 includes a joint 2a and a guide shaft 2b. The guide shaft 2b is fitted into a fine hole formed along the axis L (see, FIG. 3) of a core of the joint 2a, and is made of a Linear Low Density Polyethylene (LLDPE).
- [29] A valve 2c is provided at one end (the downstream direction of a liquid cosmetic material) of the guide shaft 2b, and a liquid passage 2d is defined in the core of the joint 2a. Further, the joint 2a is integrated with the vessel body 1 into a single structure

by coupling both sides of an inner projection 1a1 provided at a predetermined position on the neck holder 1a to a portion between a large-diameter part 2e and a coupling part 2f. Thus, the joint unit 2 is arranged at the other end (the upstream direction of the liquid cosmetic material) of the axis L in such a way as to be offset from the neck holder 1a. The joint unit 2 is constructed so that the valve 2c is provided at a first end thereof and the cartridge 6 is installed at a second end thereof. Thereby, the liquid cosmetic material is fed from the cartridge 6 through the liquid passage 2d and the valve 2c to the downstream side.

[30] A brush holder 3 made of a PP resin or the like is slidably installed at the first end of the joint unit 2. A partition wall 3a is installed at the center in the brush holder 3. A valve seat 3b is provided on the upstream side of the partition wall 3a, that is, adjacent to the joint unit 2 such that the valve seat 3b selectively comes into close contact with, or moves away from, the valve 2c. The brush holder 3 also includes a stopper 3c which may be in contact with a protrusion 2g of the joint 2a, and a guide groove 3d which guides the brush holder 3 in the axis L in cooperation with the protrusion 2g. A first spring S1 is installed between the stopper 3c and the large-diameter part 2e while being compressed, and comprises a coil spring which is made of stainless steel or the like. Thus, the stopper 3c is biased to normally contact the protrusion 2g, due to the elastic force of the first spring S1.

[31] Therefore, when no external force acts on the brush holder 3 to compress the first spring S1, that is, when the cap 7 is taken out, the brush holder 3 slides to the downstream side of the joint unit 2, due to the elastic force of the first spring S1. As shown in FIG. 5, the valve seat 3b is spaced apart from the valve 2c, so that a gap is formed between the valve seat 3b and the valve 2c, and thereby the liquid cosmetic material flows downstream. Moreover, reference numeral P1 denotes an O-ring which is made of a nitrile rubber resin or the like.

[32] Further, a brush means 4 is supported by holder parts 3e provided on left and right sides of the partition wall 3a of the brush holder 3. The brush means 4 includes a brush 4a, a brush casing 4b, a ring 4c, and a brush pipe 4d made of a stainless steel material. The brush 4a is made of a PBT resin or the like, and is surrounded by the brush casing 4b, made of a PP resin, so as to protect the brush 4a. Further, the ring 4c is provided on the outer portion of the brush casing 4b. The brush means 4 is press-fitted into the vessel body 1 such that the ring 4c of the brush casing 4b comes into contact with an end of the brush holder 3. Thereby, the brush casing 4b is installed at a hollow portion which is provided at the left side of the partition wall 3a. Thus, as an external force acts in a direction from the left side (the downstream side of the liquid cosmetic material) of FIGS. 2 and 3 to the right side (the upstream side of the liquid cosmetic material), the brush holder 3 slides rightwards against the elastic force of the first

spring S1.

[33] Further, a cap stop rim 1a2 is provided on the outer portion of the neck holder 1a, and limits a cap pushing range. The brush protecting cap 7 is detachably mounted to come into contact with the cap stop rim 1a2.

[34] Next, the construction of the cartridge 6 mounted to the upstream side of the joint 2a will be described. The upstream side of the joint 2a protrudes outwards from an end coupling part 1a3 of the neck holder 1a. A stainless pipe 5 is installed in such a way as to slide along the protruding part. A spring seat 5a is provided on an inside end of the pipe 5 and supports a second spring S2. The second spring S2, comprising a stainless coil spring, is installed between the spring seat 5a and the coupling part 2f while being compressed. Further, a stopper link 5b is mounted to the spring seat 5a in such a way as to be movable in a hollow portion between the neck holder 1a and the joint 2a in the axis L of the vessel body 1. The stopper link 5b is made of a polyacetal resin (POM resin) or the like. The stopper link 5b normally contacts the end coupling part 1a3, due to the elastic force of the second spring S2. This determines the maximum protruding extent of the outside end of the cartridge 6 which protrudes from an open end 1b1 of the body 1b. An O-ring P2 made of an NBR resin is installed between the pipe 5 and the joint 2a. Thus, even though the pipe 5 slides, the liquid cosmetic material does not flow out. Therefore, the stopper link 5b is biased to be normally supported by the end coupling part 1a3 of the neck holder 1a, due to the elastic force of the second spring S2 (see, FIGS. 2 and 3).

[35] The cartridge 6 is fitted over the pipe 5. As shown in FIG. 6, the cartridge 6 includes a cartridge body 6a, a packing 6c, and the knocking cap 6d. The cartridge body 6a is made of a PP resin. The packing 6c is made of an LLDPE resin, with a ball 6b being press-fitted into the packing 6c. The knocking cap 6d is made of a PP resin, and is detachably mounted to a boss-shaped outside end 6a1 of the cartridge body 6a. A stopper 6d1 is provided on the knocking cap 6d in such a way as to come into contact with the open end 1b1 of the body 1b. The knocking cap 6d is appropriately selected from various kinds of knocking caps that are designed to correspond to plating or painting on the surface of the vessel body 1, that is, the body 1b, or a material (e.g. plastics, metals, and others) of the body 1b. Thus, it is possible to replace an original knocking cap 6d with another one according to a user's taste, after removing the original knocking cap 6d from the outside end 6a1 of the cartridge body 6a.

[36] Further, since a small gap is present between the outer circumference of the cartridge body 6a integrated with the knocking cap 6d and the inner circumference of the body 1b, the cartridge 6 is smoothly guided in a horizontal direction without generating any frictional noise.

[37] Thus, a new cartridge 6 is inserted into the open end 1b1 of the body 1b to be in

contact with the stopper link 5b, and is press-fitted over the pipe 5 against the elastic force of the second spring S2. Hence, the ball 6b is inserted into the cartridge 6, and the cartridge 6 is integrated with the pipe 5 due to frictional resistance between a ball positioning part 6b1 and the pipe 5, thus contacting the joint 2a.

[38] Meanwhile, when the knocking cap 6d is appropriately pulled, the spring seat 5a of the pipe 5 remains on the stopper link 5b, and only the cartridge 6 slides off the pipe 5.

[39] Next, when a new cartridge is press-fitted into the open end 1b1 of the body 1b again, the ball 6b protruding toward the pipe 5 is removed from the ball positioning part 6b1, and the pipe 5 is fitted into the packing 6c. Thereby, the replacement of the cartridge 6 is completed.

[40] Further, since the stopper link 5b engages with the end coupling part 1a3, the cartridge 6 is press-fitted into the vessel body 1 against the elastic force of the second spring S2 until the stopper 6d1 of the knocking cap 6d comes into contact with the open end 1b1 of the body 1b. Thereby, the cartridge 6 is integrated with the pipe 5 into a single structure, and slides the joint 2a, thus executing a pumping action. Through such a pumping action, the liquid cosmetic material is supplied from the liquid passage 2d to the valve 2c.

[41] The brush protecting cap 7 will be described below. As shown in FIG. 4, the cap 7 comprises a double structure having an outer cap 7a and an inner cap 7b movably installed in the outer cap 7a. A third compression spring S3 is installed between the outer cap 7a and the inner cap 7b while being compressed, and has an elastic force greater than that of the first spring S1. The inner cap 7b is normally biased toward a stopper 7a1 provided on the outer cap 7a, due to the elastic force of the third spring S3.

[42] The cap 7 is fitted over the vessel body 1 until an open end of the outer cap 7a engages with the cap stop rim 1a2 provided on the neck holder 1a of the vessel body 1. Further, an internal engaging part 7a2 is provided on the inner portion of the outer cap 7a, and an external engaging part 1a4 (see, FIG. 5) is provided on the neck holder 1a to correspond to the internal engaging part 7a2. Thereby, the cap 7 of FIG. 4 covers the brush holder 4 in the state of FIG. 5. Simultaneously, the internal engaging part 7a2 of FIG. 4 engages with the external engaging part 1a4. Thereby, the brush protecting cap 7 maintains a predetermined coupling force, so that it is protected and supported by the neck holder 1a, in addition to protecting the brush 4a.

[43] However, when the brush 4a is covered by the cap 7, the inner cap 7b must come into contact with the ring 4c of the brush casing 4b, before the outer cap 7a is stopped by the cap stop rim 1a2. Thereafter, a covering force (an external force) acts continuously, so that the elastic force of the third spring S3 is transmitted from the inner cap 7b through the ring 4c to the brush holder 3. Consequently, the valve 2c is reliably in contact with the valve seat 3b by covering the cap 7, thus preventing the flow of the

liquid cosmetic material. Conversely, when the cap 7 is removed from the brush 4a, the valve seat 3b moves away from the valve 2c due to the elastic force of the first spring S1, and the liquid passage 2d communicates with the brush's side, thus defining a cosmetic supply passage.

[44] The operation of the eyeliner, according to the embodiment of this invention, will be described below. As shown in FIGS. 1a, 2 and 3, the brush means 4 which is one of the components of the brush holder 3 is covered by the brush protecting cap 7. Thus, since the force of the third spring S3 is stronger than that of the first spring S1 when the eyeliner is not in use, the valve seat 3b is in close contact with the valve 2c, and a valve hole of the valve seat 3b is closed. Such a construction prevents the liquid cosmetic material from being supplied from the cartridge 6 to the brush 4a due to a user's carelessness. Further, even if the knocking cap 6d of the cartridge 6 is fitted, the valve hole is closed, thus preventing the supply of the liquid cosmetic material.

[45] Further, it is possible to replace the cartridge 6 with a new one, in the state where the vessel body 1 is covered with the brush protecting cap 7. That is, the cartridge 6 is pulled out of the pipe 5 and the body 1b via the knocking cap 6d, so that it is possible to take the cartridge 6 out of the body 1b. Afterwards, the new cartridge 6 is press-fitted into the body 1b. As shown in FIGS. 2 and 3, by fitting the cartridge 6 into the pipe 5, it is possible to replace the cartridge 6 without removing the brush protecting cap 7. In this case, the cap 7 covers the vessel body 1, thus preventing the liquid cosmetic material from flowing to the brush, due to cartridge fitting pressure during the replacement of the cartridge.

[46] When this invention is used as the eyeliner, the brush protecting cap 7 is removed from the vessel body 1. At this time, as shown in FIG. 5, no force acts to constrain the ring 4c of the brush casing 4b. Thus, the stopper 3c moves leftwards to the protrusion 2g, due to the elastic force of the first spring S1, thus engaging with the protrusion 2g. Thereby, the valve seat 3b becomes spaced apart from the valve 2c, and the liquid passage 2d communicates with the brush side. Consequently, when the knocking cap 6d of the cartridge 6 is knocked (pushed) leftwards, the pipe 5 integrated with the cartridge 6 moves the joint 2a leftwards against the force of the second spring S2, so that the stopper 6d1 contacts the open end of the vessel body 1. Thereby, the liquid cosmetic material contained in the cartridge 6 is supplied from the liquid passage 2d through the valve 2c and the valve seat 3b to the brush 4a. Through such a process, the liquid cosmetic material is continuously supplied, thus permitting smooth makeup application.

[47] According to this embodiment, it is easy to install and remove the cartridge 6, and it takes a short time to install and remove the cartridge 6. Further, the knocking cap 6d coupled to the cartridge 6 may be decorated with various kinds of designs, according to

a user's taste. Moreover, when the cartridge is replaced and a new cartridge is installed, a user can immediately put on makeup by pushing the knocking cap 6d.

[48] The eyeliner has been described herein as one example of this invention. However, this invention may be adapted to lip gloss and tools for applying other liquid cosmetic materials. Further, the materials of several components or elements used in the eyeliner have been described as one example. It is possible to adopt other materials. Further, the cartridge 6 constructed so that the knocking cap 6d is detachably mounted has been described herein. However, a cartridge 6 which does not use the knocking cap 6d may be used in this invention. In this case, the cartridge itself is pushed.